

L 18846-63

ACCESSION NR: AP3005770

and compiled in two nomograms. Inasmuch as available literature could not offer a safe method of verification of relations derived by the author a special experimental program has been set for the purpose of: 1) verification of relations between computed angles of oscillation direction of the free end of a cantilever tapered and twisted blade and the angle of twist and 2) establishing the dependency of frequency of oscillation due to bending of a tapered twisted blade on the speed of rotation. Devices designed for this purpose and the method of experiments with series of blades are fully described and experimental data found to be in good agreement with the theoretical ones. Orig. art.has: 19 formulas, 11 figures and 2 tables.

ASSOCIATION: Statni vyzkumny ustav tepelne techniky, Prague, (State Research Institute for Thermodynamics)

SUBMITTED: 12Jan63

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: AP

NO REF SOV: 001

OTHER: 009

Card 3/3

KOPRIVC, I.

Blazic, S.; Smuk, J. Problems of the cloth-making industry in connection with textile production. p. 3.

TEKSTIL, Zagreb, Vol. 4, no. 1, Jan. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

KOPRIVIK, B.; BURIAN, V.

Persistence of *Salmonellas* in waters of carp and duck farming. Cesk. hyg. 9 no.2:97-104 Mr'64

1. Okresni hygienico-epidemiologicka stanice, Olomouc.

\*

CHARVAT, J.; KANDRAC, M.; KOPRIVQYA, A.; KUCHEL, O.

Rhythmic excretion of urinary steroids following injections of ACTH;  
studies on phase conditions in endocrinology. Cas. lek. cesk. 92 no.  
48:1314-1320 27 Nov 1953. (OIML 25:4)

1. Of the Third Internal Clinic (Head--Prof. J. Charvat, M.D.) of  
Charles University, Prague.

KANDRAC, M.; MARESOVA, Z.; PELAK, Z.; KOPRIVOVA, A.

Hepatopathy, cholecystopathy and 17-ketosteroids elimination  
by urine. Vnitr. lek., Brno 1 no.7:498-506 July 55.

1. Z III. vnitřní kliniky KU v Praze, přednosta Akademik  
Josef Charvat. Praha II-499, Státní fakultní nemocnice.

(URINE

17-ketosteroids in liver & gallbladder dis.)

(LIVER, diseases

urinary excretion of 17-ketosteroids.)

(GALLBLADDER, diseases

urinary excretion of 17-ketosteroids.)

KOPRIVOVA, Serafina, Ph.Mr.

New methods in manufacturing cosmetics. Prum potravín 13  
no.3:133-134 Mr '62.

1. Vyvojove pracovisko narodniho podniku Kozmetika, Bratislava.

Koprna, M.

Koprna, M. A contribution to the strength method. p. 152.

Vol. 4, no. 3, 1956  
STAVEPNICKY CASOPIS  
TECHNOLOGY  
Czechoslovakia

So. East European Accessions, Vol.6, May 1957  
No. 5

KOPFNA, M.

The traverse method of analyzing continuous structures. (to be contd.) p. 198.

(Stavebnicky Casopis. Vol. 5, no. 3, 1957. Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.



KOPRNA, M.

"The traverse method. (Conclusion)"

p. 292 (Stavebnicky Casopis) Vol. 5, no. 5, 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

KOPRNA, M.

Iteration variant of the deformation method. p. 191.

STAVEBNICKY CASOPIS: (Slovenska akademia vied) Bratislava, Czechoslovakia.  
Vol. 7, no. 4, 1959.

Monthly List of East European Accessions (EEAI) IC, Vol. 8, No. 12, Dec. 1959.  
UNCL

KOPRIVA, Miroslav, inz.

Automatic welding on site. Zvaranie 12 no.3:66-69 Mr '63.

1. Prerovske strojirny, n.p., zavod Montaze.

• <https://doi.org/10.1006/0006-0075>

APR 17 1968

AUTHOR: Koprov, B. M.

measuring the transfer functions of the U-14 aircraft

1. A. I. Zhuravskiy, *Izv. Akad. Nauk SSSR, Tekhn. Fiz.*, 1965, No. 10, p. 1765.

atmospheric turbulence, weather forecasting, low-frequency  
atmospheric surface waves, low frequency  
turbulence theory / 1970-1980 / extent of air

ABSTRACT: A method is presented for determining the transfer functions of air-  
craft. It consists of a comparison of synchronously measured spectra  
of the aircraft and of the ground. The aircraft are flying at a  
constant flight altitude using a high speed camera. The ground are pre-  
sented. Determine the transfer function of the aircraft. The transfer function  
obtained is compared with the transfer function of the aircraft. The transfer function  
is obtained on the basis of equations for small oscillations of the aircraft in hor-  
izontal and an assumption of isometric turbulence. A qualitative agreement  
of scales greater than the aircraft was discovered.

L 21,959-65

APPROXIMATE NR: AP5007598

small-scale range, the experimental results are in good agreement with theory, this being due to the imperfection of the theoretical scheme. A method is proposed for determining an approximate transfer function from the measurement of the measured signal spectrum only. Orig. in Russian. 1966. 10 refs.

Address: Institut fiziki atmosfery, Akademiya nauk SSSR (Atmospheric physics  
Institute, Academy of sciences, USSR)

— 224 — 255004

ENCL: 00

17. 100% 41

7: 500

OTHER: \_\_\_\_\_

- 11 - 2/2

L 8923-66 EWT(1)/FCC GW

ACC NR: AP5028354

SOURCE CODE: UR/0362/65/001/011/1151/1159

AUTHOR: Koprov, B. M.

ORG: Institute of the Physics of the Atmosphere, Academy of Sciences, SSSR (Institut fiziki atmosfery, Akademiya nauk SSSR)

TITLE: Spectra of turbulent pulsations in the vertical component of wind velocity in the atmospheric boundary layer when convection has developed

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 11, 1965, 1151-1159

TOPIC TAGS: air turbulence spectrum, boundary layer turbulence, wind velocity, atmospheric turbulence, free atmosphere, planetary boundary layer, anemometer

ABSTRACT: This article discusses the results of turbulence measurements taken with an acoustic anemometer in an airplane. These measurements were made as a continuation of those described in an earlier paper (Zubkovskiy, S. An experimental investigation of the spectra of pulsations in the vertical component of wind velocity in the free atmosphere. IN: AN SSSR. Izvestiya. Seriya geofizicheskaya, no. 8, 1963), which showed that the author's data were associated with a frequency range whose lower limit was defined by distortions related to responses of the airplane to wind gusts. The material used in the present work, therefore, was that used by the author of the present paper which is described as being more adequate for this purpose (IN: AN SSSR. Iz-

Card 1/2

UDC: 551.551.25

L 8923-66

ACC NR: AP5028354

vestiya. Fizika atmosfery i okeana, v. 1, no. 6, 1965). Pulsations were recorded by an N-700 tape recorder. Since the recorder could be run at speeds higher than the recording speed, the spectral density could be measured effectively in the low-frequency range. Flights were made from 9 August through 1 September 1963 in the vicinity of Tsimlyansk (Rostov Oblast), and measurements were taken at heights of 50, 100, 200, 500, 1000, 2000, and 3000 m, each flight taking 20 to 40 min. Measurements were made primarily on days with well-developed convection. Proximity to the large reservoir and river valley caused in-flight turbulence. A total of 25 spectra were obtained, each corresponding to an interval of 20-40 min or averaging over 70-140 km. Curves are presented for the rate of dissipation of turbulent energy  $\epsilon$ , the dispersion of fluctuations  $w'$ , and for scale  $L$  (corresponding to the maximum of the function  $kF_w(k)$ ), as functions of height. Orig. art. has: 9 figures and 7 formulas. [EO]

SUB CODE: 04/ SUBM DATE: 17May65/ ORIG REF: 010/ ATD PRESS: 4152

CC  
Card 2/2

KOPROV, V.M.

Schwinger effect with consideration of shielding of a nucleus with  
atomic electrons. Zhur.eksp.i teor.fiz. 38 no.2:639-641 F '60.  
(MIRA 14:5)

(Nuclei, Atomic) (Neutrons--Scattering)



S/903/62/000/000/020/044  
B102/B234

AUTHORS: Popov, V. M., Usachev, L. N.

TITLE: The problem of small-angle neutron scattering

SOURCE: Yadernyye reaktsii pri malykh i srednikh energiyakh; trudy  
Vtoroy Vsesoyuznoy konferentsii, iyul' 1960 g. Ed. by  
A. S. Davydov and others. Moscow, Izd-vo AN SSSR, 1962, 213-218

TEXT: A theoretical analysis is given of the role played by the various possible neutron interaction mechanisms at small angles ( $2-5^\circ$ ). The considerations are based on a Hamiltonian taking account of the potentials of the nucleus, of Schwinger interaction and of polarization:

$H = -\hbar^2 \Delta / 2m + U_{\text{nucl}} + U_{\text{Schw}} + U_{\text{pol}}$ , where  $U_{\text{nucl}} = U_0(r) + U_s(r)LS$ , and

$U_{\text{pol}}(r) = \begin{cases} -\alpha Z^2 e^2 / r^4 & r > R \\ 0 & r < R \end{cases}$  where  $R$  is the nuclear radius and  $\alpha$  the neutron polarizability. The resulting cross section formula reads

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The problem of small-angle neutron scattering

S/503/62/000/000/020/044  
B102/B234

$$\begin{aligned} \sigma(0, \varphi) = & |f|^2 + |h|^2 + 2\text{Re}(f^*h) Pn + \\ & + \frac{e^2}{4} \text{ctg}^2 \frac{\theta}{2} \left[ \frac{e}{2} \text{ctg} \frac{\theta}{2} \text{Im} f Pn - \frac{e}{2} \text{ctg} \frac{\theta}{2} \text{Im} h + \right. \\ & \left. + 2\text{Re} f f_{\text{non}}^B + 2\text{Re} h f_{\text{non}}^B Pn + (f_{\text{non}}^B)^2 \right] \end{aligned} \quad (*)$$

where  $F = f_{\text{nuc}} + f_{\text{Schw}} + f_{\text{pol}}$ , ( $\text{non} \approx \text{pol}$ ) and

$$\begin{aligned} f_{\text{non}}^B = & \frac{1}{R} \cdot \frac{1}{2} KR \left[ \frac{\sin KR}{(KR)^2} + \frac{\cos KR}{KR} + \sin KR \right], \\ \gamma = & 2\alpha Z^2 \frac{e^2}{\hbar c} \cdot \frac{mc}{\hbar}, \quad K = 2k \sin \frac{\theta}{2}, \quad F = f + h \text{Sn} - i \frac{e}{2} \text{ctg} \frac{\theta}{2} \text{Sn} + f_{\text{non}}^B. \end{aligned}$$

the first terms may be considered as linear in  $\cos \theta$  up to about  $20^\circ$ . The third term represents the contribution to the differential scattering cross section in the case of a partially or completely polarized neutron beam,

where  $P = \frac{2\text{Re}(f^*h)}{|f|^2 + |h|^2}$ ,  $\vec{n}$  is the normal onto the scattering plane. The fourth term in (\*) represents the contribution of Schwinger interaction and the

Card 2/3

KOPROV, V.P.

Investigating the static strength of the frame of the CHMZAP-5208  
trailer. Avt.prom. 31.no.10:17-19 0 '65.

(MIRA 18:10)

1. Chelyabinskiy politekhnicheskii institut.

J

L 35822-66 ENP(j)/ENT(m)/T/ENP(v) IJP(c) RM/WW

ACC NR: AP6003748

(A)

SOURCE CODE: UR/0113/65/000/010/0017/0019

AUTHOR: Koprov, V. P.

51  
B

ORG: Chelyabinsk Polytechnic Institute (Chelyabinskiy politekhnicheskii institut)

TITLE: A study of the static strength of the frame of the ChMZAP-5208 trailer

SOURCE: Avtomobil'naya promyshlennost', no. 10, 1965, 17-19

TOPIC TAGS: Trailer, transportation equipment, vehicle engineering, static load test, strain gage, glue, torsion strength, bending strength, potentiometer, metal stress/ BF-4 glue, EPD-120 potentiometer, ChMZAP-5208 trailer

ABSTRACT: The results of strength tests of the frame of the ChMZAP-5208 three-axle trailer are given. Strain gauges with a resistance of 100  $\Omega$  and a base of 20 mm were glued with BF-4 glue and held under a load for 1-2 hrs. An EPD-120 electronic potentiometer was also used. A bending load of 40 t was applied symmetrically relative to the longitudinal axis of the frame. The existing design of the junctions of the frame causes high stresses of constrained

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L 35822-66

ACC NR: AP6003748

twisting at relatively small angles of twisting of the frame. The flooring sheet also exerts a substantial influence on the stress distribution in the elements of the frame. The weight of the frame can be reduced by 260-280 kg without reducing its strength. Separate application of symmetric and anti-symmetric loads in conjunction with four strain gauges in transverse sections of the frame made it possible to obtain a complete picture of the stressed state of the frame. Orig. art. has: 1 diagram, 4 graphs and 2 formulas.

SUB CODE: 13/

SUBM DATE: none/

ORIG REF: 005

UDC: 629.1-43.001.24

L 14542-63

EWI(1)/BDS/ ES(v) AFFTC/ASD/ESD-3/APCC/SSD P1-4/Po-4/

Pg-4/Pe-4 GW

ACCESSION NR: AP3002307

S/0053/63/080/001/0093/0124

AUTHORS: Malkovich, M.S.; Samsonov, Yu. B.; Koprova, L. I.

TITLE: Water vapor in the stratosphere

SOURCE: Uspekhi fizicheskikh nauk, v. 80, no. 1, 1963, 93-124

TOPIC TAGS: stratosphere, mesosphere, water content, local measurement, spectral measurement, indirect measurement, source, sink

ABSTRACT: The results of recent research on the vertical distribution of water vapor in the stratosphere are surveyed and compared with some indirect estimates of the moisture content at high altitudes. Various methods and instruments for local measurements of moisture content are described and their relative accuracies discussed. Estimates are made of the total water vapor content in the stratosphere under various assumptions and the results tabulated. The results are also compared with those obtained by spectral measurements, based on the presence of strong absorption lines in the infrared spectrum of the water vapor, measured at different altitudes with airborne instruments. The spectrometers employed and their characteristics are described. The possible errors in the interpretation of the spectral

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L 14542-63

ACCESSION NR: AP3002307

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data are listed. Other indirect methods of estimating humidity are briefly mentioned and the vertical profiles suggested by these methods are discussed. The main conclusions of all the methods is that there are two layers in the stratosphere, a lower one (10--20 km) in which the water vapor concentration is low, about 0.001 g/kg, and an upper one where the concentration is one or two orders of magnitude higher. The possible physical mechanism that causes the increase in water concentration in the mesosphere is analyzed. The connection between high water vapor concentration and the high temperature in the mesosphere is pointed out and the correlation with the production of silver clouds is discussed. The bearing of the water content in the mesosphere on the hydroxyl emission of the night sky is also discussed briefly. Indirect estimates of the water-vapor content, based on measurement of the flux of long-wave radiation in the stratosphere and on the analysis of the conditions for the formation of silver clouds and the hydroxyl radiation, are in agreement with the hypothesis that there is a high moisture content in the upper stratosphere. It is concluded that although all measurements admit of an interpretation such that the vertical profile of the water-vapor concentration can be described by a simple exponential function whose parameters exhibit a scatter correlated with the difference in the conditions of the individual measurements, such an interpretation must be regarded at best as tentative. It is further concluded that

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ACCESSION NR: AP3002307

that spectroscopic measurements with instruments carried by high-altitude rockets  
and satellites offer the greatest promise of reliable data in the future. Orig.  
art. has: 10 figures, 20 formulas, and 5 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: FH, AS

NO REF SOV: 015

OTHER: 038

Card 3/3

ROMANOVA, L.M.; KOPROVA, L.I.; ROZENBERG, G.V., prof., otv. red.

[Actinometry and atmospheric optics; transactions] Akti-  
nometriia i optika atmosfery; trudy. Moskva, Nauka,  
1964. 385 p. (MIRA 18:1)

1. Mezhdomstvennoye soveshchaniye po aktinometrii i  
optike atmosfery. 5th, Moscow, 1963. 2. Institut fiziki  
atmosfery AN SSSR, Moskva (for Rozenberg, Koprova).



L 21756-65 ENT(1)/EWG(v)/FCC/EWA(h) Po-4/Pc-5/Pq-4/Pae-2/Pt-10/Peb/Pf-4  
GW

ACCESSION NR: AP5000170

S/0293/64/002/006/0881/0900

AUTHOR: Koprava, L.I., Malkevich, M.S.

TITLE: The thermal radiation of a spherical atmosphere

SOURCE: Kosmicheskiye issledovaniya, v. 2, no. 6, 1964, 881-900

TOPIC TAGS: atmospheric thermal radiation, atmospheric outgoing radiation, ozone, mesosphere, water vapor absorption band

ABSTRACT: The authors have solved the thermal radiation transport equation for the case of a spherically symmetrical atmosphere. The solution is expressed by the transmission function, averaged for individual spectral intervals. An approximation of the transmission function is proposed which ensures its reliable extrapolation into the region of small thicknesses of absorbing matter. The authors have also derived expressions for determination of the intensity, flux and increment of radiation escaping from the upper boundary of a spherical atmosphere, both for averaged parameters of the atmosphere and for the random variations. In addition, the authors have computed the angular variation of the intensity of thermal radiation in different parts of the spectrum escaping from the upper boundary of a spherically symmetrical atmosphere. Also considered is the variability

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ACCESSION NR: AP5000170

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of the field of outgoing radiation, determined by variations in the temperature of the underlying surface and atmosphere, cloud cover and other factors determining outgoing radiation. It is noted that the real field of the earth's radiation is not spherically symmetrical. The transmission function has not been computed sufficiently reliably for large angles. In this matter, the results presented in the paper lead to the following basic conclusions. The field of radiation escaping from the upper boundary of the atmosphere in all space is most homogeneous and isotropic in the parts of the spectrum corresponding to the central parts of the absorption bands. In intervals of atmospheric transmission the radiation field is less homogeneous and isotropic and most clearly reflects the temperature pattern of the underlying surface. The intensity of outgoing radiation in these intervals decreases with approach of the direction of sighting to the horizon (of the limb of the planetary disk); in the central parts of the absorption bands, on the other hand, there is a "brightening" of the limb. An exception is the absorption band of ozone in which the radiation intensity decreases toward the limb and has a noticeable jump on the earth - atmosphere discontinuity. The angular distribution of the intensity of outgoing radiation is not sufficiently sensitive to variations in the vertical distribution of atmospheric temperature for it to be used for determination of temperature profiles. The thermal nonhomogeneity of the underlying surface and clouds, which

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ACCESSION NR: AP5000170

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primarily will determine the angular structure of the field of outgoing radiation, apparently will exclude the possibility of reliable solution of this problem. The variability of the field of outgoing radiation is related for the most part to variations in the temperature of the underlying surface and clouds. The vertical distributions of temperature and the content of absorbing matter exert a lesser influence on the checkered character of the field of outgoing radiation. The radiation of the mesosphere itself makes an appreciable contribution in the field of the absorption bands of water vapor and carbon dioxide. "In conclusion the authors express deep appreciation to G. V. Rozenberg for discussion of certain of the results of the work and also to V. G. Alekseyev, L. V. Medvedeva and L. N. Markina for preparation of the program and making calculations on the "Ural-III" computer." Orig. art. has: 33 formulas, 3 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 17Mar64

SUB CODE: ES

ENCL: 00

NO REF SOV: 010

OTHER: 010

Card 3/3

E 34956-65 EWT(1)/FCC GW

ACCESSION NR: AP5007594

S/0362/65/001/001/0027/0032

AUTHOR: Koprov, L. I.; Malkevich, M. S.

TITLE: Empirical orthogonal functions for optimum parametrization of temperature and humidity profiles

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 1, 1965, 27-32

TOPIC TAGS: temperature profile, humidity profile, parameter presentation, atmospheric physics, empirical function, statistical orthogonal analysis

ABSTRACT: Systems of empirical and orthogonal vectors assuring optimum determination of vertical distributions of temperature and specific humidity in the atmosphere are determined on the basis of statistical processing of data from aerological sounding over the city of Bismark (46° 50' N, 100° 35' W) and from the ship "S" (52° 45' N, 35° 30' W) in July and January. Certain properties of orthogonal vectors and their universality are considered. Orig. art. has: 4 figures, 2 tables and 3 formulas.

ASSOCIATION: Institut fiziki atmosfery Akademiyi nauk SSSR (Atmospheric physics institute, Academy of sciences, SSSR)

Card 1/2

L 34956-65

ACCESSION NR: AP5007594

SUBMITTED: 16Jun64

ENCL: 00

SUB CODE: ES

NO REF SOV: 005

OTHER: 001

Card 2/2

L 50799-65 EWT(1)/EWG(v) Pa-5/Pae-2 GS/GW  
NR: AT5011152 UR/0000/64/000/000/0025/0031

AUTHOR: Koprov, L. I.; Malkevich, M. S.

TITLE: Thermal radiation of a spherical earth

SOURCE: Mezhvedomstvennoye soveshchaniye po aktinometrii i optike atmosfery. 5th, Moscow, 1963. Aktinometriya i optika atmosfery (Actinometry and atmospheric optics); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 25-31

TOPIC TAGS: thermal radiation, transmission function, absorption band, nadir, mesosphere, stratosphere, ascending radiation, geographical latitude, temperature gradient

ABSTRACT: Thermal radiation leaving a spherical earth was studied. A radiation equation containing transmission functions of various atmospheric layers with different gas densities and temperatures was developed. A rapid decrease in radiation leaving the region of absorption bands occurs when the angle between the radiation direction and the nadir is less than 60°. The radiation suddenly increases.

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L 52759-65

ACCESSION NR: AT5011152

in the  $O_3$  band. For some wavelengths the radiation intensity in the mesosphere is twice that in the lower stratosphere. A graph shows the dependence of intensity of the ascending radiation upon the geographic latitude and cloudiness. The latitude is more important than the cloudiness. The intensity of the radiation leaving depends upon the temperature gradient, the vertical distribution of absolute temperatures, and the angle between the nadir and the direction of radiation. The spectral composition of this radiation differs from that of the black body at various K temperatures. The variations in the intensity of radiation of different wavelengths are represented graphically for atmospheric levels of 12 km and 60 km. Orig. art. has: 6 figures and 2 formulas. [EG]

ASSOCIATION: Institut fiziki atmosfery AN SSSR, Moscow (Institute of the Physics of the Atmosphere, AN SSSR)

SUBMITTED: 25Nov64

ENCL: 00

SUB CODE: ES

NO REF SOV: 005

OTHER: 007

ATD PRESS: 4011

Card <sup>de</sup> 2/2

KOPROVA, L.I.; MALKEVICH, M.S.

Empirical orthogonal functions for the optimum parameterization  
of the temperature and humidity profiles. Izv. AN SSSR. Fiz. atm.  
i okeana 1 no.1:27-32 Ja '65. (MIRA 18:5)

1. Institut fiziki atmosfery AN SSSR.



L 63464-65 FSS-2/EXT(1)/FS(v)-3/ENG(v) TT/GW

AP5019152

UP 70242/43/001/007/0703/0714

AUTHOR: Boldyrev, V. G.; Koprov, L. I.; Malkevich, M. S.

THE role of vertical temperature and humidity profiles during the de-  
termination of the Earth's surface temperature from outgoing radiation

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 7, 1965,  
703-714

TOPIC TAGS: weather satellite, window transparency measurement, atmospheric  
temperature, atmospheric humidity, atmospheric radiation absorption

ABSTRACT: Satellites of the "Tiros" series carried out measurements of the  
surface temperature utilizing radiation leaving the Earth through the  
"transparency window" existing in the 8-12  $\mu$  range. However, due to  
absorption effects, the errors of such measurements may be as high as  
several tenths of a degree. Presently, a method for the determination of the tempera-  
ture from satellite measurements of outgoing radiation is proposed. It is based  
on the use of the vertical temperature and humidity structure. Following an  
outline of the theory, the authors present some examples of such profiles and

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vertical profiles of temperature-humidity mutual correlation coefficients for different regions of the Soviet Union and the rest of the world. Examples are worked out illustrating the proposed method; however, the general use of the proposed method presupposes further extensive research for the collection of pertinent data, particularly relative to vertical profiles in the presence of cloudiness. Orig. art. has: 25 formulas, 2 figures, and 5 tables.

ASSOCIATION: Institut fiziki atmosfery, Akademiya nauk SSSR (Institute of the Earth's Atmosphere, Academy of Sciences SSSR) Mirnyy meteorologicheskii tsentr (World Meteorological Center)

ENCL: 00

NO REF SOV: 000

OTHER: 001

Card 2/2

24  
Luminescence-Fluorimetric investigation of  
benzoxa in some areas of the Court of the  
Walsham and N. A. Kopyev

**"APPROVED FOR RELEASE: 03/13/2001**

**CIA-RDP86-00513R000824520001-9**

**APPROVED FOR RELEASE: 03/13/2001**

**CIA-RDP86-00513R000824520001-9"**

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824520001-9

ZAPROVA, N. A.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824520001-9"

LOBOV, V.A.; KOPROVA, N.A.

Association of gas content to depths. Razved. i prom.geofiz.  
no.12:24-29 '55. (Oil well logging) (MLRA 9:7)

KOPROVA, N.A.  
LOBOV, V.A.; KOPROVA, N.A.

Method of establishing gas-liquid boundaries in pools having  
carbonate reservoirs. Rasved.i okh.nedr 21 no.6:20-26 M-D '55.  
(MLRA 9:12)

(Prospecting) (Petroleum geology)

KOPROVA, N.A.

Luminescence and bituminous characteristics of Paleozoic  
deposits of the Kuybyshev region in the Volga Valley.

Prikl. geofiz. no.14:207-213 '56.

(MLBA 9:9)

(Volga Valley--Geology, Stratigraphic)



FLOROVSKAYA, V.N.; BARANOVA, T.E.; IL'INA, A.A.; KOPROVA, N.A.;  
NIKOLAYENKO, M.P.; SEMINA, M.D.

Reply to P.F.Andreev, E.M.Geller, A.A.Kartsev, and Z.M.  
Tabasaranskii's review on the book "Luminescence-bitumen  
analysis and its application in petroleum geology" by V.N.  
Florovskaya and others. Sov.geol. 3 no.5:123-127  
My '60. (MIRA 13:7)

(Luminescence) (Bitumen)  
(Andreev, P.F.) (Geller, E.M.) (Kartsev, A.A.)  
(Tabasaranskii, Z.M.)

ROPROWSKA, PAWEL

Synthesis of N-(p-carboxyphenyl)-N-thiocarbamoyl-  
~~hydrochloride~~ Zygmunt Ładachowski, Hanna Kocur,  
 and Teresa Wozniak (Polskie, Gdańsk, ~~Chem.~~ ~~Pol.~~ ~~Ch.~~  
 hand). Zesz. dydak. Politech. Gdańsk., No. 1, 33-34 (1964)  
 (German summary). --NH<sub>2</sub>CH<sub>2</sub>SH (4.2 g.), 50 ml. N HCl,  
 and 14.6 g. p-H<sub>2</sub>NCH<sub>2</sub>SO<sub>2</sub>NHCH<sub>2</sub>CO<sub>2</sub>H-2 were evapd. to  
 dryness in a water bath, the residue was triturated with  
 water, evapd. to dryness, and treated with H<sub>2</sub>O and again  
 evapd. The product was washed several times with hot  
 water and the resulting white powder recrystd. from 25%  
 EtOH concg. activated C to give p-H<sub>2</sub>NCH<sub>2</sub>SO<sub>2</sub>NHCH<sub>2</sub>CO<sub>2</sub>H,  
 CH<sub>2</sub>CO<sub>2</sub>H, microscopic crystals, m. 218°. Insol. in water,  
 easily sol. in EtOH, dioxane, and acetone, sol. in alkalis and  
 in aq. bicarbonates. [L. F. Hendel]

1  
 2

LANGENFELD, Halina; KOPROWSKA, Ryszarda.

A case of frontal syndrome with paranoid complications in post-vaccinal encephalitis. Neurol. neurochir. psychiat. pol. 13 no.5:721-723 '63.

1. Z Kliniki Chorob Psychiczych AM w Gdansk, (kierownik: prof. dr. T. Bilikiewicz) oraz z Kliniki Chorob Nerwowych AM w Gdansk. (kierownik: prof. dr. T. Majewska);

\*

SCAND

KOPROWSKA, Ryszarda and KOZAKIEWICZ, Jerzy; Clinic of Nervous Diseases (Klinika Chorob Nerwowych), AM /Akademia Medyczna -- Medical School/ in Gdansk, Director: Prof Dr Zofia MAJEWSKA; and Clinic of Dermatology (Klinika Dermatologiczna) AM in Gdansk, Director: Prof Dr Franciszek MIEDZINSKI

"Parkes-Weber Syndrome. Case Report"

Warsaw, Polski Tygodnik Lekarski, Vol XVIII, No 6, 4 Feb 1983, pp 227-229.

Abstract: Authors' English summary modified/ Parkes-Weber syndrome in a 4 year old girl is reported. The triad characteristic of this syndrome, i.e. plane hemangiomas, one-sided hyperostosis and unilateral enlargement of the blood vessels was determined together with deformation and enlargement of the 3rd and 4th finger of the left hand, skin hypertrophy of the left palm and the feet. Eeg tracings revealed enlargement of the left brain ventricle. The similarities and differences between the Parkes-Weber and Klippel-Trenaunay syndrome and their etiology are discussed. The literature on the subject is reviewed. 3 illustrations; 1 Polish, 5 Western references

KOPROWSKA-BARC, Ryszarda; JANKOWICZ, Eleonora

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824520001-

Cerebrospinal meningitis in the aged. Pol. tyg.lek. 18 no.51: 1926-1928 16 D'63

1. Z Kliniki Chorob Układu Nerwowego AM w Gdąsku; kierownik: prof.dr. Zofia Majewska.

KOPROWSKI, E.

"Achievements of resin collectors in the Bylgoszcz region" p. 42 (las polski, Vol. 26,  
No. 2, Feb. 1952, Warszawa)

East European Vol. 3, No. 3  
SO: Monthly List of ~~Russian~~ Accessions, Library of Congress, March 195<sup>4</sup>, Uncl.

KOPROWSKI, Edmund

Magnetic heads. Przegl elektroniki 3 no.11:666-679  
N '62.

KOPROWSKI, Edmund

Development of magnetic recording techniques of TV signals.  
Przeł elektroniki 5 no.12:655-664 D '64.

1. Central Research Laboratory of the Polish Radio and TV  
Broadcasting, Warsaw. Submitted August 4, 1964.

L 00514-66 FSS-2

ACCESSION NR: AP5013680

PO/0053/65/000/004/0186/0197  
621.397

AUTHOR: Koprowski, E. 65

TITLE: Magnetic tape recording and reproducing heads for television signals 156

SOURCE: Przegląd elektroniki, no. 4, 1965, 186-197

TOPIC TAGS: TV signal recording, TV signal reproduction, TV magnetic tape recording, recording head, reproducing head 188B

ABSTRACT: The paper discusses the following topics: The basic differences between magnetic tape recording and reproduction of audio and television signals (the frequency bandwidths involved, the recording and reproducing systems, the speed of the tape). The requirements to be met by heads for use in magnetic recording and reproduction of television signals and how they differ from those used for audio frequencies. The dimensions of the head for the case of television signals as derived on the basis of the minimum and maximum signal wavelengths involved. The dynamic range of a television head (at least 40 db). The required minimum induced emf in the head for television signals (not less than 1 mV over the entire frequency band of interest). The maximum noise level permissible at the amplifier input (must be less than 10  $\mu$ V to achieve the dynamic

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L 00514-66

ACCESSION NR: AP5013680

range required). The maximum inductance and capacitance of a television signal head. The requirements of the magnetic material for television signal head (resistance to abrasion, the Curie temperature must exceed 250C). Television signal losses in the head and the type of losses during recording and reproduction. The design of the television-signal head as used in video-signal recorders operating according to the Ampex system and the design of television-signal heads using two magnetic materials ferrite and alfenol, and ferrite only are described. Curves of the linear expansion coefficients of glass and ferrite for temperatures up to 400C are shown. All-ferrite heads are discussed, their merits and shortcomings pointed out, and their inductance-temperature curve is shown. It is concluded that the ferrite television-signal heads are most apt to be used widely in the future. The heads discussed were developed in the Centralne Naukowo-Badawcze Laboratorium Polskiego Radia i Telewizji (Central Scientific Research Laboratory of Polish Radio and Television). Alfenol was developed in the Katedra Metaloznawstwa (Department of Metal Science) of the Politechnika Warszawska (Warsaw Polytechnic Institute). Ferrites were produced in the Instytut Maszyn Matematycznych Polskiej Akademii Nauk (Institute of Mathematical Machines, Polish Academy of Sciences). In the Zaklad Produkcji Doswiadczalnej (Department of Experimental Production). Special three-phase synchronous hysteresis motors (15,000 rpm, 250 cps) were developed in the

Card 2/3

1 00511-66

ACCESSION NR: AP5013680

Zaklad Maszyn Elektrycznych Politechniki Warszawskiej (Department of Electrical Machines, Warsaw Polytechnic Institute). "The author thanks Prof. Dr. Engr. A. Smolinski for reading the paper and valuable comments and to Dr. Engr. B. Urbanski, the director of the Centralne Naukowo-Badawcze Laboratorium (Central Scientific Research Laboratory), for making it possible to prepare this paper." Orig. art. has: 17 figures and 3 formulas.

ASSOCIATION: Centralne Naukowo-Badawcze Laboratorium Polskiego Radia i Telewizji (Central Scientific Research Laboratory, Polish Radio and Television)

SUBMITTED: 00

ENCL: 00

SUB CODE: EG, EE

NO REF SOV: 000

OTHER: 004

Card 3/3

KOPROWSKI, Jacek, inz.

Clearing prices as an incentive for the improvement of  
the quality of coal. Wiadom gorn 13 no.7/8:251-253  
Jl-Ag '62.

KOWALSKI, W.; JASTRZEBSKI, J.; MATYJASZEK, H.; KOPROWSKI, L.; BIENIEK, J.

Biochemical blood changes in delayed union and pseudarthrosis of the long bone. Chir. narz. ruchu ortop. polska 26 no.5:541-547 '61.

1. Z Kliniki Ortopedycznej AM i z Oddziału Ortopedycznego Szpitala Wojewodzkiego we Wroclawiu Kierownik: dr J.Kowalski.  
(FRACTURES UNUNITED blood) (PSEUDARTHROSIS blood)  
(BLOOD PROTEIN)

SIDORSKI, T.; KOPROWSKI, L.; PRZYBYLSKI, J.; KRAWCZYK, E.

Clinical evaluation of various osteoplastic methods in the osteosynthesis of delayed union and pseudarthrosis of the long bone. Chir. narz. ruchu ortop. polska 26 no.5:585-592 '61.

1. Z Kliniki Ortopedycznej AM i z Oddziału Ortopedycznego Szpitala Wojewódzkiego we Wrocławiu Kierownik: dr J.Kowalski.  
(FRACTURES UNUNITED surg) (PSEUDARTHROSIS surg)

KOPROWSKI, Z.

Some regulations on grain trade. p. 7.

Most important tasks in the preparation of the technical basis for buying grain in 1955; Soviet experiences. p. 11.

GOSPODARKA ZROSOBA, Warszawa, Vol. 6, no. 6, June 1955.

EO: Monthly List of East European Accessions, (EMAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

KOPROWSKI, Z.

New principles of grading the grains of small value. p. 10

GOSPODARKA ZBOZOWA, Warszawa. Vol 6, no. 9, September 1955

SOURCE: East European Accessions List (EEAL) LC Vol 5, No. 3, March 1956

KOPROWSKI, Z.

New regulations on the management of grain. p. 2.  
GOSPODARKA ZBOZOWA. Vol. 7, No. 5, May 1956. Warszawa.

East European Accessions List (EEAL) Library of Congress  
Vol. 5, No. 11, August 1956.



KOPRYAKOV, P. YE.

Agriculture

Improving agronomical services to collective farms. Sov. agron. 10 no. 5, '52.

Monthly List of Russian Accessions. Library of Congress, July 1952. Unclassified.

KOPS, Jaromir

Data on the philosophical aspect of the issues in genetics.  
Biologia (Bratisl.) 19 no.11:880-886 '64

1. Katedra dialektického a historického materializmu Prírod-  
vedeckej fakulty Univerzity Komenského v Bratislave.

KOPS, Kucjan, dr inż.

Studies on the consumption process of abrasive dust in  
ultrasonic machining. Przegl mech 22 no. 12:386 25 Je '63.

1. Katedra Obrobki Metali, Politechnika, Krakow.

KOPS, L.

First stage in testing the prototype of the EKA thermoelectrolytic milling cutters. p.317.

MECHANIK (Stowarzyszenie Inzynierow i Technikow Mechanikow Polskich) Warszawa  
Vol. 28, no. 8, Aug. 1955

So. East European Accessions List

Vol. 5, No. 9

September 1956

KOPS, Lucjan

Ultrasonic machining and machine tools. Inst obrobki skraw Prace  
no.15:5-107 '61.

NOVAKOVIC, Aleksandar, pukovnik d-r; KOPSA, Milan, potpukovnik, docent d-r

Our experiences with traumatic eye problems in the last 5 years.  
Voj.san.pregl., Beogr. 12 no.5-6:236-241 May-June '55.

1. Očno odeljenje VMA  
(EYE, wds. & inj.  
therapy & results (Ser))  
(WOUNDS AND INJURIES  
eye, ther. & results(Ser))

KOPSA, Milan, Popukovnik doc., dr.

Continuous intubation of nasolacrimal duct in the treatment of dacryocystitis. Voj. san. pregl., Beogr, 13 no.7-8:342-348 July-Aug 56.

1. Ocna klinika VMA.

(DACRYOCYSTITIS, surg.

continuous intubation of nasolacrimal duct (Ser))

(NASOLACRIMAL DUCT, surg.

continuous intubation in dacryocystitis (Ser))

KOPSA, Milan

KOPSA, Milan, Potpukovnik doc. dr.; MARUSIC, Kazimir, potpukovnik dr.

Tonography in diagnosis and treatment of glaucoma. Voj. san. pregl., Beogr. 14 no.1-2:28-37 Jan-Feb 57.

1. Ocna klinika VMA.

(GLAUCOMA,

tonography in diag. & ther. (Ser))

(EYE

tonography in diag. & ther. of glaucoma (Ser))



KOPSA, Milan, puk. doc. dr.

Results reached in the treatment of primary tapeto-retinal degeneration and of other diseases of the macular region by hypophyseal melanin extract "senac". Srpski arh. celok. lek. 87 no.6:558-565 Je '59.

1. Klinika za ocne bolesti Vojnomedicinske akademije u Beogradu;  
nacelnik: puk. doc. dr Milan Kopsa.

(CHOROID dis.)

(RETINA dis.)

(MACULA LUTEA dis.)

(PITUITARY GLAND extracts)

KOPSA, Milan, sanitetski pukovnik prof. d-r; MAHUSIC, Kazimir, sanitetski  
pukovnik d-r

Clinical possibilities for early diagnosis of primary glaucoma.  
Voj.san.pregl., Beogr. 17 no.4:500-504 Ap '60.

1. Klinika za očne bolesti.  
(GLAUCOMA diag.)

KOPSA, Milan, sanitetski pukovnik prof. d-r.; KUJACIC, Bogdan, sanitetski potpukovnik, d-r

Report on our results of the treatment of ocular tuberculosis with the "Nedeljkovic filtrate." Voj.san.pregl., Beogr. 17 no.7/8:805-807 J1-Ag '60.

1. Vojnomedicinska Akademija u Beogradu, Klinika za ocne bolesti.  
(TUBERCULOSIS OCULAR ther)

KOPSA, Milan, sanitetski pukovnik prof. d-r

Principal injuries of the eye in wartime and management of eye patients in aid stations. Voj.san.pregl., Beogr. 17 no.9:911-917 S '60.

1. Vojnomedicinska Akademija u Beogradu, Klinika za ocne bolesti  
(EYE wds & inj)  
(MILITARY MEDICINE)

KOPSA, Milan, sanitetski pukovnik prof. dr; PANAJOTOVIC, Dragomir, sanitetski  
potpukovnik dr

Hyperthermic injuries of the eye. Voj.san.pregl., Beogr. 18 no.1:  
43-47 Ja '61.

1. Vojnomedicinska Akademija u Beogradu, Očna klinika  
(BURNS)  
(EYE wds & inj.)

GRBESA, Branislav, sanitetski potpukovnik, doc., dr.; KOPSA, Milan,  
sanitetski pukovnik, prof., dr.; GAZIVODA, Nikola, kapetan  
I kl., dr.

A case of optic neuroencephalomyelitis. Vojnosanit. pregl. 19  
no.1:55-58 Ja '62.

1. Vojnomedicinska akademija u Beogradu, Klinika za zivcane  
bolesti, Ocna klinika.  
(OPTIC NERVE dis) (ENCEPHALOMYELITIS case reports)

S

~~KOPSA~~, Milan, sanitetski pukovnik, profesor, dr.; MARUSIC, Kazimir,  
~~sanitetski~~ pukovnik, docent, dr.; PANAJOTOVIC, Dragomir,  
sanitetski potpukovnik, dr.

Protection of the organ of vision from war injuries.  
Vojnosanit. pregl. 20 no. 1/2:37-41 Ja-F '63.

1. Vojnomedicinska akademija u Beogradu.  
(EYE INJURIES) (WOUNDS, GUNSHOT)  
(ATOMIC WARFARE) (WAR)

KOPSHITSER, I. Z.

Experience with Treatment By Prolonged and Conditioned Reflex Sleep Under  
the Conditions Prevailing at a Unit Hospital and Medical Station.

VOYENNO-MEDITSINSKIY ZHURNAL (MILITARY MEDICAL JOURNAL), No 12, 1954. p. 58



KOPSHITSER, I.Z. (Chernyakhovsk)

What a nurse should know about the epileptic and hysterical attacks.  
Med.sestra 15 no.6:9-12 Je '56. (MLRA 9:9)  
(EPILEPSY) (HYSTERIA)

KOPSHITSER, I.Z. (Chernyakhovsk, Kaliningradskoy oblasti)

Neuropsychic disorders in leptospiral jaundice. Klin.med. 34 no.9:  
78-83 S '56. (MLRA 9:11)

(WEIL'S DISEASE, COMPL.  
disord. of ES)

(NERVOUS SYSTEM, dis.  
caused by Weil's dis.)

KOPSHITSER, I.Z., (Chernyakhovsk, Kaliningradskoy oblasti)

Simplified method for electrosphygmography. Klin. med. 35  
no.1:117 Ja '57 (MIRA 10:4)  
(SPHYGMOGRAPH)

KOPSHITSER, I.Z.

Clinical and statistical materials on the incidence of vascular psychoses as revealed by data from the psychoneurological hospitals of the R.S.F.S.R. Trudy Gos. nauchno-issl. inst. psikh. 22:64-74 (MIRA 15:1) '60.

1. Organizatsionno-metodicheskiy otdel (zav. - doktor med.nauk I.A.Berger) i klinika sosudistyykh psikhov (zav. - prof. V.M. Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikiatrii Ministerstva zdavookhraneniya RSFSR.  
(CEREBROVASCULAR DISEASE) (MENTAL ILLNESS)

KOPSHITSER, I.Z.

Vascular diseases of the brain in young persons. Trudy Gos. nauchno-  
issl. inst. psikh. 22:117-124 '60. (MIRA 15:1)  
(CEREBROVASCULAR DISEASE)

KOPSHITSE, I.Z. (Moskva)

Pathogenesis of paroxysmal paralysis and some of its clinical  
manifestations. Zhur. nerv. i psikh. 61 no. 1:56-59 '61.

(MIRA 14:4)

(PARALYSIS)

KOPSHITSER, I.Z. (Moskva)

Leptospiral jaundice or anicteric leptospirosis. Klin.med.38  
no.3:135-136 M<sup>r</sup>160. (MIRA 16:7)  
(WEIL'S DISEASE) (LEPTOSPIROSIS)

KLYUCHIKOV, V.N.; SLEZKINA, L.I.; KOPSHITSER, I.Z.; SHUSTIKOVA, A.G.

Clinical and genealogical studies of the family of a patient with Thomsen's myotonia. Zhur. nevr. i psikh. 63 no.9:1313-1319 '63. (MIRA 17:8)

1. Klinika nervnykh bolezney Yaroslavskogo meditsinskogo instituta (zav. kafedroy - dotsent V.N. Klyuchikov) i nervnoye otdeleniye (zav. A.G. Shustikova) gorodskoy bol'nitsy No. 68 (glavnyy vrach V.M. Knyazev), Moskva.



FEDOTOV, D.D., prof., otv. red.; REMEZOVA, Ye.S., zam. otv. red.;  
AVERBAKH, Ya.K., red.; BOLDYREV, A.I., (Moskva) red.;  
GOL'DOVSKAYA, G.I., red.; KOPSHITSER, I.Z. (Moskva), red.

[Materials of the All-Russian Conference on the Problem  
of Epilepsy, April 1964] Materialy Vserossiyskoy konferen-  
tsii po probleme epilepsii, Moskva, Gos.nauchno-issl. in-t  
psikhiatrii, 1964. 293 p. (MIRA 18:1)

1. Vserossiyskaya konferentsiya po probleme epilepsii, 1964.
2. Direktor Gosudarstvennogo nauchno-issledovatel'skogo in-  
stituta psikhiatrii Ministerstva zdravookhraneniya RSFSR  
(for Fedotov).

ZAPUSKALOV, V.I.; KASPAROVA, S.A.; KONOROVA, Ye.V.; KOPSHITSER,  
I.Z.; LARIONOV, V.P.; SVIDLO, V.M.; FOL'TS, K.K.; ZOTOV,  
V.A., red.

[Exercise therapy in the psychiatric hospital] Iachebnaia  
fizicheskaia kul'tura v psikhiatricheskoi bol'nitse. Mo-  
skva, Meditsina, 1965. 235 p. (MIRA 18:8)

KOPSHITSER, I.Z.

Rudimentary type of Charcot-Marie's neural amyotrophy; the  
Roussy-Levy type (35 years of catamnestic observations on  
a family). Zhur. nevr. i psikh. 65 no.8:1143-1149 '65.  
(MIRA 18:8)

1. Nauchno-issledovatel'skiy institut psikhiatrii Ministerstva  
zdravookhraneniya RSFSR, Moskva.

BRODEKIY, M.I., inzh.; KOPSHTEYN, Sh.N., inzh.

Standard precast reinforced concrete canals and tunnels with shallow foundations. Prom. stroi. 42 no.10:35-37 0 '64. (MIRA 17:11)

S/137/62/000/002/107/14  
A060/A101

AUTHOR: Kopson, Kh.

TITLE: Methods for investigating corrosion cracking

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 87, abstract 2I590  
(V sb. "Korroziya, rastreskivaniye i khrupkost'". Moscow, Mashgiz, 1961, 174 - 187)

TEXT: A plan is considered, according to which the investigation of corrosion cracking should be carried out. The classification of modes of destruction under corrosion cracking is given. To evaluate the processes of corrosion cracking one should take into account the time factor, the nature of the stresses, the state of the metal, and the effect of the corrosive environment. In investigating corrosion cracking under laboratory conditions it is possible to study the effect of metallurgical and physical factors. A theoretical explanation of the corrosion cracking mechanism is given. There are 52 references.

Ye. Layner

[Abstracter's note: Complete translation]

Card 1/1

7845-66 EWT(1)/EWP(a)/EPA(a)-2/EWT(m)/EWP(1)/EPA(w)-2/EWP(t)/EWP(b) IJP(o)  
ACC NR: AP 5028099 JD/GG/WH SOURCE CODE: UR/0048/65/029/011/1969/1973

AUTHOR: Kopstik, V.A.; Gavrilova, N.D.

ORG: Physics Department, Moscow State University im. M.V. Lomonosov (Fizicheskii fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Experimental investigation of the pyroelectric effect in ferroelectric crystals /Report, Fourth All-Union Conference on Ferro-electricity held at Rostov-on-the-Don 12-16 September 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya. v. 29, no. 11, 1965, 1969-1973

TOPIC TAGS: Pyroelectricity, ferroelectricity, single crystal, electric domain structure, barium titanate, ferroelectric crystal, organic crystal

ABSTRACT: Measurements by one of the authors (N.V. Gavrilova, Kristallografiya, 10, 346 (1965)) of the pyroelectric constants of barium titanate and triglycine sulfate and Rochelle salt are presented graphically and discussed with reference to the dynamic theory of V.Kh. Kozlovskiy (Izv. AN SSSR. Ser. fiz., 29, No. 6, 882 (1965)). The measurements were made by a static compensation method while the samples (0.1-0.6 mm thick 8-32 mm<sup>2</sup> area crystal plates) were heated in the absence of an external field. These are the first absolute static measurements with an accuracy of 2.3% of the pyroelectric constants of barium titanate and triglycine sulfate. The maximum of the pyroelectric constant occurred for all the materials at a

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temperature considerably below the Curie point. The maximum of the pyroelectric constant is associated with a transformation of the domain structure from the unipolar state to the macroscopically nonpolar state. The temperature (T) dependence of the polarization (P) was given for all the materials by the equation  $T/T_m = (P/P_m)^2 (2 - (P/P_m)^2)$ , where  $T_m$  and  $P_m$  are constants. This formula was derived from the dynamic theory (loc.cit.surpa) for an antiferroelectric with two rigid sublattices; for the case of a ferroelectric with a domain structure, the formula corresponds to neglect of the contribution of the surface energy of the domain walls to the free energy of the crystal. Orig. art. has: 9 formulas and 4 figures.

SUB CODE: SS, EM, TD

SUBM DATE: 00/

ORIG. REF: 007 OTH REF: 005

Card 2/2

KOPTA, E.

"The role played by the Ganz Factory in the early electrification of Europe and the present electrification of the Balkan and Levantine countries; the hydroelectric-power plant of Ikizdere." In English, p. 371

PERIODICA POLYTECHNICA. (Budapesti Muszaki Egyetem) Budapest, Hungary  
Vol. 2, No. 4, 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959  
Uncl.



KOPTA, Ervin

A new rorker has arrived; school of stewards, I. Munka 10 no.1:12  
Ja '60.

1. "Munka" rovatvezetoje.

KCPTA, Ervin

A promoter of production; school of stewards, V.. Munka 10  
no.5:30 My '60.

1. "Munka" rovatvesetoje

KOPTA, Ervin

This way you can help too; the school of stewards, II. Munka  
10 no.2:12 F '60.

1. "Munka" rovatvezetoje.

KOPTA, Ervin

It needs will and honesty; school of stewards, III. Munka 10 no.3:  
30-31 Mr '60.

1. "Munka" rovatvezetoje.

KOPTA, Ervin

One of the many. Hung TU no. 5114 My '62.

KOPTA, S.; NIEWODNICZANSKI, H.; PUDLOWSKA, B.

Coulomb excitation of rhodium nucleus. Acta physica Pol 26 no.6:  
1133-1141 '64.

1. Institute of Nuclear Physics, Krakow. Submitted May 8, 1964.

KOPTA, V.; ZIZKA, S.

New methods in the instruction of youth of the working class." P. 45.

SKLAR A KERAMIK. (Ministerstvo lehkeho prumyslu). Praha, Czechoslovakia,  
Vol. 9, No. 2, Feb. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

KOPTA, Vladeboj

Control of forms makes the office work more economical. Podn  
org 18 no.8:372-373 Ag '64.

1. Zapadomoravske strojirny, Trebic.



PLETNEV, Vladimir Stepanovich; STAVROVSKIY, A.Ye., red.; KOPTEKOVA, L.A.,  
red.; SOKOLOVA, R.Ya., tekhn. red.

[Work of grade 5-7 students in agriculture; from the experience of  
the Kursk Province schools] Trud uchashchikhsia V-VII klassov sel'-  
skokhoziaistvennom proizvodstve; iz opyta raboty shkol Kurskoi ob-  
lasti. Pod red. A.E.Stavrovskogo. Moskva, Izd-vo Akad. pedagog.  
nauk RSFSR, 1957. 56 p. (MIRA 14:7)  
(Agriculture—Study and teaching)

ZVORYKIN, Boris Sergeyevich; FIALKINA, G.A., red.; KOPTEKOVA, L.A., red.;  
TARASOVA, V.V., tekhn.red.

[Practical manual for electrical work in secondary schools;  
practices of School No.315 in Moscow] Praktikum po elektrotekhnike  
v srednei shkole; iz opyta raboty shkoly No.315 Moskvy. Moskva,  
Izd-vo Akad. pedagog. nauk RSFSR, 1957. 126 p. (MIRA 10:12)  
(Electric engineering)

ROF TETROV, L.M.  
FETISOV, A.I., redaktor; ~~KOPTENKOVA, L.A.~~, redaktor; GARNEK, V.P.,  
tekhnicheskiiy redaktor

[Teaching of mathematics; a collection of articles] Prepodavanie  
matematiki; sbornik statei pod red. A.I.Fetisova. Izd. 3-e, dop.  
1 ispr. Moskva, 1957. 249 p. (MIRA 10:11)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut metodov  
obucheniya.  
(Mathematics--Study and teaching)

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